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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/531,932

04/19/2005

Igor Ivanovich Blednov

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS

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BRIARCLIFF MANOR, NY 10510

EXAMINER

NGUYEN, KHANH V

ART UNIT

PAPER NUMBER

2817

DATE MAILED: 11/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/531,932

Applicant(s)

BLEDNOV, IGOR IVANOVICH

Examiner

Khanh V. Nguyen

Art Unit

2817

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 7-10, 12-15 is/are rejected.
- 7) ☒ Claim(s) 4-6 and 11 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>04/05 and 02/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Headers, such as "FIELD OF INVENTION", "BACKGROUND OF THE INVENTION", "SUMMARY OF THE INVENTION", "BRIEF DESCRIPTION OF THE DRAWINGS", "DETAILED DESCRIPTION" are missing.

Claim Objections

Claims 1, 6 are objected to because of the following informalities:

Claim 1, line 16, "an final" should correctly be -- a final --.

Claim 6, lines 1-2, "the linear (16) amplitude control unit" should correctly be -- the linear branch-circuit (16) --?

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1 recites the limitation "the predistortion unit" in line 16. There is insufficient antecedent basis for this limitation in the claim.

Claim 14 recites the limitation "the phase control unit" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 7-10, 12, 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Vaughn et al. (5,703,531).

Regarding claims 1-3, 7-10, Vaughn et al. (Fig. 1) disclose a predistortion linearizer comprising: supplying an input signal to at least one input terminal distributing the input signal present on at least one input terminal (IN) to a plurality of parallel branch-circuits (24, 26) as branched signals by a power distributing circuit (22); controlling a phase parameter and/or an amplitude parameter (36) of the branched signals by at least one nonlinear branch-circuit (26); controlling a phase parameter (32) and an amplitude parameter (30) of the branched signals by at least one linear branch-circuit (24); combining output signals of at least one nonlinear branch circuit (26) with the output signals of at least one linear branch circuit (24) by a power combining circuit (40); providing a final output signal (OUT) of the predistortion linearizer from the power

combining circuit (40) on at least one output terminal (OUT). Note, reference circuit (Fig. 4) discloses amplitude and phase are adjusted/controlled.

Regarding claim 12, wherein the linear amplitude control unit is attenuator (30).

Regarding claim 14, wherein the slotlines (24, 26) are transmission line.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 13, 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vaughn et al.

Regarding claim 13, Vaughn et al. disclose the claimed invention except a filtering circuit claimed. However, it is well known in the art that filter is usually used to improve stability of a circuit. As such, by adding a filter to circuit terminal would have been obvious to a person having ordinary skill in the art.

Regarding claim 15, Vaughn et al. disclose claimed invention except a circuit is integrated in a semiconductor device. However, such construction has become standard in the art and would have been an obvious modification in the absence of unexpected results in order to reduces cost, time to market and manufacturing cost. Note, Vaughn et al. is a microwave integrated circuit.

Allowable Subject Matter

Claims 4-6, 11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 4 calls for, among others, wherein liner/nonlinear amplitude control unit is controlled depending on a power level of an input signal.

Claim 5 calls for, among others, wherein liner/nonlinear amplitude control unit is controlled depending on an external adjustable value.

Claim 6 calls for, among others, wherein linear/nonlinear branch circuits has its own specific RF power level and individual nonlinear function.

Claim 11 calls for, among others, wherein nonlinear amplitude control unit comprises at least one nonlinear element and at least one amplifier.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The additional references (Ren (6,538,509); (Ahn (6,211,734)) show further analogous prior art circuitry, predistortion linearizer.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khanh V. Nguyen whose telephone number is (571) 272-1767. The examiner can normally be reached from 8:00 AM - 3:30 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pascal can be reached on (571) 272-1769. The fax phone numbers

for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9306 for After Final communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



KHANH VAN NGUYEN
PRIMARY EXAMINER
Art Unit: 2817